

Bench of tiredness in rotational bending

DESCRIPTION

- Bench SFT 400 makes it possible to study the various parameters intervening in the process of tiredness mechanical
- Counting of the number of cycle to the rupture.
- Variation of alternating loads by application of a variable effort/rotational bending.
- The various shapes of provided test-tubes.
- Teaching handbook included.
- Designed, manufactured to industrial standards.
- The didactic interest of the SFT 400 is directed towards the IUT, schools of engineers and universities in mechanical sections.



TEACHING APPLICATIONS

- Description of the parameters inducing the rupture by tiredness
- Layout of curve SN of Wöhler
- Statistical tiredness approaches

System présentation:

Electric box +
control panel

Engine of drive

Aluminium structure
anodized on feet



Serrated roller for variation of
the effort inducing the alternate
constraint of inflection

Dynamometer to measure the
effort

Support of load application
on the test-tube and
detector of rupture

Transparent bonnet cover

Test-tubes of diameter wraps
12mm and of length 150mm/all
alternatives of profiles and
realizable throats 10 provided
test-tubes (aluminium, and
steel/diameters of 6 with 12mm)

Technical description :

Structure :

- In shaped anodic aluminium of section 45mm*45mm
- 4 feet adjustable shock absorbers
- Transparent cap maintained closed by 2 knurled nuts

Electric box :

- Metal electric box
- Desk of integrating piloting in frontage: Disconnecting switch, circuit breaker principal, differential, emergency stop, walk general stop with indicator, walk/engine stoppage, indicator driving state and of general power supply
- Bill-poster LCD of the number of cycle before rupture/reset by button in frontage

Revolving part :

- Three-phase asynchronous motor 2850tr/min - 230/400V - 50/60Hz
- Tree guided by ball bearings
- chuck has tightening conical for immobilization of test-tube (key specific provided)
- 1 inductive detector for counting of the number of cycles of the test.

Device of load application:

- A serrated roller makes it possible to regulate the effort exerted at the end of the test-tube until 30kg
- A dynamometer makes it possible to measure this effort
- The effort is applied at the end of the test-tube by a bearing related to the support of load application
- 1 breaking process detector of test-tube/starts the automatic stop of the counting of the number of cycles

Utilities, dimensions and weight (in kg):

- Power supply: 400V three-phase + neutral 50/60Hz (other on specific request)
- Dimensions (L*I*h in mm): 750 X 300 X 600
- Weight: 40kg approximately